DOCUMENT RESUME

ED 199 505 CE 028 316

TITLE Bilingual Skills Training Program. Barbering/Cosmetology. Module 8.0: Excretory System.
INSTITUTION Northern New Mexico Community Coll., El Rito.
PUB DATE [80]
NOTE 35p.; For related documents see CE 028 291.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adult Vocational Education; Anatomy; *Barbers; Behavioral Objectives; *Bilingual Education; *Cosmetologists; Cosmetology; *Human Body; Individualized Instruction; Learning Activities; Learning Modules; Physiology; Postsecondary Education; Pretests Posttests; Second Language Learning; Service Occupations; *Spanish; Trade and Industrial Education; *Vocabulary Development
IDENTIFIERS *Excretory System

ABSTRACT

This module on the excretory system is the eighth (CE 028 308-318) in the barbering/cosmetology course of a bilingual skills training program. (A Vocabulary Development Workbook for modules 6-10 is available as CE 028 313.) The course is designed to furnish theoretical and laboratory experience. Module objectives are for students to develop trade-related Spanish/English vocabulary, to discuss the importance of knowledge of systems in the human body to cosmetologists and barbers, to discuss perspiration and its importance, and to describe function of the kidneys, liver, large intestine, and lungs. Contents include list of module objectives; pretest; four sections on (1) The Body is a Wonderful Machine, (2) Is It Healthy to Perspire?, (3) The Kidneys, and (4) Vital Organs of the Excretory System; posttest; and English/Spanish vocabulary list. Each section is organized into this format: instructions, vocabulary, and concepts (statements or questions to direct reading) presented in English and Spanish; readings; and worksheets to evaluate comprehension of the trade-related reading material. (Readings in modules 1-5 are in both English and Spanish.) Worksheets also cover these areas: vocabulary, definitions, word attack skills, writing skills, spelling, and application of terminology to the trade area. (YLB)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED199505

# BILINGUAL SKILLS TRAINING PROGRAM
# BARBERING/COSMETOLOGY
# MODULE 8.0

# EXCRETORY SYSTEM

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

P. Felix

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

OE 028 316

NORTHERN NEW MEXICO COMMUNITY COLLEGE
EL RITO, NEW MEXICO 87530

## I. PURPOSE

This module is to:

1. Assist students in developing trade-related vocabulary.
2. Facilitate the learning of the trade through reading information sheets, vocabulary lists and language exercises.
3. Provide student with individual check lists for individual progress.

## II. INRODUCTION

Cosmetology and Barbering require the student to follow a defined theoretical course of study as well as acquire practical knowledge in the respective trade. Due to the limited amount of time allowed for theory and the difficulty of the technical vocabulary found in the reading, the student often needs additional help in this area. Students in above trades are required to pass the State Board Examination before practicing their trade. To succeed in passing this exam and to be better equipped for the job, the student must be able to function in the oral and written communication skills and utilize the technical vocabulary of their trade. This module is structured to provide for individual needs of the students so that they may progress at their pace in the academic or theoretical area. A simple coding system is utilized to facilitate the student use.

## III. ACTIVITIES

Because each module is geared for individualized instruction it is important to assess the individual needs of the students. A pre-test is administered to students before they begin working with a module. Instructions are given orally in Spanish and English.

Instructions, vocabulary and concepts in each module are written in Spanish and English so as to explain the purpose of each reading. There is a reading for each objective presented in the module. The reading is referred to as an information sheet. This sheet is designed to provide the student with reading material incorporating the technical vocabulary that is needed in the trade skill area. The gradation of reading is from simple to more complex. Thus the information sheet facilitates the learning process in the theoretical course of study. Each information sheet is followed by a series of diversified work sheets directly checking for comprehension of the reading material. Other items covered in these work sheets are: vocabulary, definitions, word attack skills, writing skills, spelling and application of terminology to the trade area.

Oral language development exercises directed by the instructor constantly reinforce the concepts presented. Students have an opportunity to utilize and develop the technical vocabulary needed in their trade by interaction among themselves, the instructor and tutors. The Bilingual dimension is specifically directed at concept and vocabulary development.

The students are directed to utilize supplementary materials available through the Learning Resource Center to reinforce each area as they progress in the module. Audio visuals are utilized to introduce subject matter. They are also accessible to the students to be used on an individual basis.

## IV. EVALUATION

The students are evaluated by the instructors as to their progress in language and in the course content area through the pre-test, work sheets, check list and a post test. Individual student profiles and folders are kept on record to check on student progress at all times. Oral development skills are assessed individually.

Students go through the following process in utilizing the modules:

Pre-test (Students scoring 85% or below must complete the entire module. Those scoring above 85% may go on to the next module).

Reading of instruction sheet
Information sheet
Series of written and oral exercises
Oral evaluation
Post test (oral and written)
Recycling, if needed (Students scoring 85% or below on post-test are recycled through module in designated weak areas. See coding system.)

V. MODULE OUTLINE

8.0 Excretory System

8.1 The Body is a Wonderful Machine

8.2 Is it Healthy to Perspire?

8.3 The Kidneys

8.4 Vital Organs of the Excretory System

STUDENT OBJECTIVES

Upon completion of this module the student will be able to:

8.1 Discuss why it is important for the cosmetologist and barber to understand the function of each system in the human body.

8.2 Discuss how the body eliminates perspiration and why this is important.

8.3 Describe the function of the kidneys.

8.4 Describe the function of the liver, the large intestine and the lungs.

PRE-TEST

1. Why must you understand how the systems work,

2. Why is the body called a wonderful machine?

3. Name the important organs of the excretory system.

4. How do sweat glands react to high temperature?

5. What is the function of the kidneys?

6. How are the kidneys kept in place?

7. What is the function of the liver?

8. How does the body use bile and glycogen?

Instructions:

In this selection you will read about how the different systems in the body work harmoniously to produce a healthy body. It is important that you understand the function of each system. Below is a list of words which are included for review. Be sure that you understand the meaning of each one before proceding to the reading selection.

Instrucciones:

En esta selección vas a leer de los diferentes sistemas del cuerpo y como funcionan con harmonía para producir la salud del cuerpo. Es importante que comprendas como funciona cada sistema. Abajo sigue una lista de vocabulario para repaso. Estudia cada palabra antes de seguir con la lectura.

| Vocabulary | Vocabulario |
|---|---|
| bacteria | bacteria |
| skeletal system | sistema esquelético |
| muscular system | sistema muscular |
| nervous system | sistema nervioso |
| endocrine system | sistema endocrino |

Keep the following questions in mind as you read the following article.

Recuerda las siguientes preguntas al leer la siguiente lectura.

1. Why is the body called a wonderful machine?
   ¿Por qué le llaman al cuerpo una máquina maravillosa?

2. How many systems are there in the human body?
   ¿Cuántos sistemas hay en el cuerpo humano?

3. Why is it important for you to understand how each system works in the body?

   ¿Por qué es importante que comprendas cómo funciona cada sistema en el cuerpo?

## The Body is a Wonderful Machine

1. The human body is probably the most perfect machine with a great number of important parts that work together to secure a healthy and long life. There are many diseases or bacteria that the body is constantly proclaiming war against. The body is always reacting to the harmful things we do to it such as eating and drinking the wrong types of things. We should stop to think how important it is to help the body function properly.

2. You have read about all the different types of systems that work together in your body and how this knowledge and understanding can help you serve your client in a more professional manner. We mentioned in prior readings that there are nine systems that are found in the human body. We have seen in detail the skeletal system, muscular system, nervous system and the endocrine system. All of these systems or groups of organs affect the healthiness and appearance of the body. Because you do work with grooming and appearance it is important for you to understand the background of each system.

3. In the next information sheet you will read about another system and how it functions.

Find The Answers 8.1

1. How many systems are there in your body?

   A. Five
   B. Three
   C. Six
   D. Nine

2. The word in paragraph 1 which means to operate is _____.

3. The words "always reacting to the harmful things" in paragraph 1 refer to _____.

4. The story does not say so, but it makes you thin that;

   A. The endocrine system controls your body.
   B. The systems all work together to help your body function properly
   C. The body functions on bacteria.

5. The systems affect only the appearance of the body.

   Yes  No  Does not say

6. On the whole this story is about;

   A. The muscular system
   B. Grooming of the body.
   C. The human body and some of its systems.

7. Why is it important to help the body function properly?

   A. To stay young.
   B. To keep the body healthy.
   C. To retain diseases.

Place the following words in alphabetical order.

1. endocrine _____
2. client _____
3. healthy _____
4. human _____
5. organs _____
6. harmful _____
7. muscular _____
8. knowledge _____
9. appearance _____
10. function _____
11. nervous _____
12. grooming _____
13. skeletal _____
14. professional _____
15. system _____

Fill in the blanks and correct punctuation and capitalization.

we have _____ in detail _____skeletal system

_____system nervous _____ and the

_____system all of _____systems or _____

of organs _____the healthiness _____ _____

appearance of _____body because _____do work

_ _____grooming and _____it is _____

for you _____understand the _____of

each _____.

Circle the correct spelling for each word.

| | | | |
|---|---|---|---|
| 1. | body | bode | bodie |
| 2. | purfeckt | perfect | purfecte |
| 3. | disease | desease | diseese |
| 4. | backteria | bacterea | bacteria |
| 5. | function | funcshion | funchion |
| 6. | sisteme | system | sistem |
| 7. | humen | human | huemen |
| 8. | organs | orgens | oregans |
| 9. | apperence | ppearence | appearance |
| 10. | grooming | groomeing | groming |

Instructions:

In this reading selection you will read about another means of eliminating waste, perspiration. You will see how the body has a natural means of eliminating toxins which could poison it. There is also a vocabulary list of important words found in the reading.

Instrucciones:

En esta selección de lectura leerás de otro modo por el cual se eliminan desperdicios, sudor. Verás como el cuerpo tiene un modo natural de eliminar venenos cuales lo pueden envenenar. Hay también una lista de vocabulario de palabras importantes que se encuentran el la lectura.

| Vocabulary | Vocabulario |
|---|---|
| excretory | excretorio |
| kidneys | riñones |
| liver | hígado |
| skin | piel |
| intestines | intestinos |
| lungs | pulmones |
| purifies | purifica |
| perspiration | sudor |
| sweat glands | glándulas sudoríporas |
| fever | fiebre |

Keep the following questions in mind as you read the information sheet.

Recuerda las siguientes preguntas al leer la página de información.

1. What important organs are included in the excretory system?
   ¿Cuáles órganos importantes se incluyen en el sistema excretorio?

2. How does the excretory system purify the body?
   ¿Cómo purifica el cuerpo el sistema excretorio?

3. Is it healthy to perspire? Why?
   ¿Es saludable sudar? ¿Por qué?

4. How do the sweat glands react to a very high temperature?
   ¿Cómo reaccionan las glándulas sudoríporas a temperatura extrema?

## Is it Healthy to Perspire?

1. From what you have read you know that the excretory system is one of the nine systems that work together to perform important functions in order to insure a healthy state for the human body. The excretory system which includes the kidneys, liver, skin, intestines and lungs purifies the body by eliminating waste matter. This waste matter is found in form of toxins or poisons which can poison the body if retained for too long a period of time. Let us see how the body eliminates these toxins or poisons.

2. 1. It is healthy to perspire because perspiration is a normal means of eliminating waste.

2. Perspiration is the water-like substance that is produced by the sweat glands which, as you read, are part of the endocrine system. The skin is made up of billions of cells with very minute pores which allow the perspiration or sweat to escape the body. This perspiration also carries salt and other chemicals. These chemicals can cause serious damage to the skin, hair and nails if it is not washed off regularly.

3. The sweat glands of the skin produce perspiration when there is a change in the outside temperature. A healthy body keeps a constant temperature of 98.6 degrees fahrenheit. Any increase of this temperature is released by the glands. Whenever a person has a very high fever the sweat glands react by excreting an excessive amount of perspiration or heat.

4. In the next information sheet you will read about other organs that make up the excretory system.

Find The Answers

1. What is the function of the excretory system?

   A. To lubricate the body.
   B. To tone the body.
   C. To support the body.
   D. To purify the body.

2. The word in paragraph 1 which means to become clean is _____.

3. The words "water-like substance" in paragraph 2 refer to _____.

4. The healthy body temperature is 98.4 degrees fahrenheit.

   Yes  No  Does not say

5. The story does not say so, but it makes you think that;

   A. Your skin retains all the salt in your body.
   B. High fever is reduced if you perspire heavily.
   C. Perspiration causes illness.

6. On the whole this story is about;

   A. Body temperature.
   B. Chemical damage.
   C. How perspiration purifies your body.

7. Waste matter can poison your _____if retained for too long a period.

   A. Glands
   B. Body
   C. Hair

Answer the following:

1. What is the normal body temperature?

2. What is perspiration?

3. Why is it healthy to perspire?

4. Which parts of your body are included in the excretory system?

5. How does perspiration escape your body?

Match:

| | |
|---|---|
| _____1. Waste matter | A. Purifies the body |
| _____2. Excretory system | B. Produce perspiration |
| _____3. Healthy body temperature | C. 98.6 |
| _____4. Sweat glands | D. Water-like substance |
| _____5. Perspiration | E. Toxins or poisons |

True or False

_____1. The healthy body temperature is 99.8.

_____2. The excretory system purifies the body.

_____3. Perspiration is a substance like skin.

_____4. Chemicals should be washed off regularly or else they will cause damage to your body.

_____5. Perspiration is produced by the sweat glands..

Look at the list of words below. If spelled correctly circle R. If the word is wrong circle the W and rewrite correctly.

| | | | |
|---|---|---|---|
| R | W | 1. excretory | _____ |
| R | W | 2. kidnies | _____ |
| R | W | 3. purefies | _____ |
| R | W | 4. perspiration | _____ |
| R | W | 5. chemicals | _____ |
| R | W | 6. farenheit | _____ |
| R | W | 7. excreeting | _____ |
| R | W | 8. sweat | _____ |
| R | W | 9. glandes | _____ |
| R | W | 10. endocrine | _____ |

Instructions:

In this article you will read about the important function the kidneys serve in your body. Below you will find a list of important words which are found in this article.

Instrucciones:

En este artículo leerás de la función importante que sirven los riñones en tu cuerpo. Abajo sigue una lista de vocabulario importante que se incluye en este artículo.

| Vocabulary | Vocabulario |
|---|---|
| kidneys | riñones |
| spinal column | columna espinal |
| waste products | desperdicios |
| metabolism | metabolismo |
| urine | orina |
| bladder | vejiga |

Keep the following questions in mind as you read the following article.

Recuerda las siguientes preguntas al leer el artículo siguiente.

1. What is the appearance of the kidneys and where are they located?
   ¿Qué parecen los riñones y dónde se encuentran?

2. Can humans survive without kidneys?
   ¿Pueden sobrevivir los humanos sin los riñones?

3. What is the function of the kidneys?
   ¿Cuál es la funcion de los riñones?

## The Kidneys

1. You have read about a very important organ of the excretory system. You know that the skin is one means of excreting the waste matter that is built up in the body. You also know that the skin and its glands regulate the temperature of the body.

2. Another very important organ which belongs to the excretory system is the kidneys.

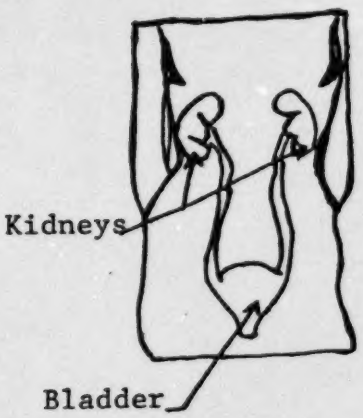
3. The kidneys are two bean shaped glands that are located at the lower end of the spinal column. A person can survive with only one kidney but if both are malfunctioning it is impossible to survive without a machine called a dialysis. A dialysis machine actually accomplishes the same tasks as the kidneys.

4. The kidneys filter the waste products that are found in the blood stream. You know that the blood circulates to all parts of the body. You will read later how the blood is nourished by another system called the respiratory or breathing system. This nourished or healthy blood releases a certain amount of water and dead cells.

5. Dead cells, as you recall, are a result of <u>metabolism</u>. Metabolism refers to the growth and death of cells. These dead cells are also referred to as uretha and uric acid. The water, uretha and uric acid are all filtered through the kidneys. We recognize this waste as <u>urine</u>. The kidneys are kept in place by tubes called ureters. Ureter tubes lead from the kidneys to the <u>bladder</u>. The urine is stored in the bladder and later released.

See the illustration which follows.

6. You will read about the three remaining organs of the excretory system in the next reading.



Find The Answers

1. Which organ filters waste products found in the blood stream?

   A. Bladder
   B. Kidneys
   C. Glands

2. The word in paragraph 4 which means to furnish or sustain with nutriment is _____.

3. The words "stored in the bladder" in paragraph 5 refer to _____.

4. The story does not say so, but it makes you think that

   A. Urine is contained in the skin.
   B. The dialysis machine filters the waste products that are found in the blood stream.
   C. Kidneys aren't necessary.

5. The ureter tubes lead from the kidneys to the bladder.

   Yes  No  Does not say

6. On the whole this story is about

   A. The respiratory system.
   B. Uretha
   C. Kidneys and their function.

7. What is the waste that is filtered through the kidneys called?

   A. Urine
   B. Blood
   C. Ureters

Answer the following question in your own words.

1. What system do the kidneys belong to?

2. What are the kidneys and where are they located?

3. What is a dialysis machine used for?

4. What is the purpose of the kidneys?

5. What does nourished or healthy blood release?

6. What does metabolism refer to?

7. By what other name are dead cells known as?

8. What kind of waste is filtered through the kidneys?

9. How are the kidneys kept in place?

10. Where is the urine stored?

Fill in the spaces to correcty spell the words below. Define each word.

1. __id__ey__ _____

_____

2. d__al__si__ _____

_____

3. __ir__ul__te__ _____

_____

4. r__sp__ra__or__ _____

_____

5. __et__bo__is__ _____

_____

6. u__et__a _____

_____

7. u__i__ __ _____

_____

8. u__et__r__ _____

_____

9. __la__d__r _____

_____

10. __xc__e__o__y _____

_____

Choose of the following words and write a sentence with them which refers to the reading.

| | | |
|---|---|---|
| excretory | metabolism | uric acid |
| respiratory | urine | dialysis |
| organ | uretha | kidney |
| bladder | spinal column | blood |

1. _____

_____

_____

2. _____

_____

_____

3. _____

_____

_____

4. _____

_____

_____

5. _____

_____

_____

True or False

1. _____Kidneys are found in the respiratory system.
2. _____Dead cells are a result of metabolism.
3. _____Blood is nourished by the respiratory system.
4. _____Kidneys are kept in place by ureter tubes.
5. _____Urine is stored in the kidneys.

Instructions:

In this selection you will read about other vital organs of the excretory system and the important role of each. Below is a list of words that are found in the reading. Read each one carefully before proceding to the reading.

Instrucciones:

En esta selección leerás de otros órganos escenciales del sistema excretorio y el papel importante de cada uno. Abajo sigue una lista de vocabulario que se encuentra en la lectura. Lee cada palabra cuidadosamente antes de proceder con la lectura.

| Vocabulary | Vocabulario |
|---|---|
| liver | hígado |
| abdomen | abdomen |
| diaphragm | diafragma |
| intestines | intestinos |
| toxins | venenos |
| bile | bilis |
| glycogen | glicógeno |
| large intestine | intestino grueso |
| lungs | pulmones |
| carbon dioxide | bióxido de carbono |

Keep the following questions in mind as you read the reading selection.
Recuerda las siguientes preguntas al leer la selección de lectura.

1. Where is the liver located?
   ¿Dónde se encuentra el hígado?

2. What is the function of the liver?
   ¿Cuál es la función del hígado?

3. How are glycogen and bile utilized by your body?
   ¿Cómo se utilizan glicógeno y bilis en tu cuerpo?

4. Which are the organs of the excretory system?
   ¿Cuáles son los órganos del sistema excretorio?

## Other Vital Organs of the Excretory System

1. You remember that there are five organs which compose the excretory system. We have seen how the skin and kidneys eliminate waste matter from the body. The remaining organs also play a vital role in the elimination process.

2. The liver is the second largest organ of the excretory next to the skin. The liver is located on the upper right side of the belly or abdomen. The liver is also connected to the diaphragm muscle. The main function of the liver is to neutralize the toxins or poisons that have been absorbed by the intestines. The liver also produces bile and glycogen. Glycogen is also called animal starch which is used by the body in the form of energy. Bile is an acid which helps the digestion of fats.

3. The fourth vital organ of the excretory system is the large intestine. The large intestine eliminates the decomposed and digested food.

4. The lungs are the last group of the vital organs of the excretory system. The lungs are not only important to the excretory system, they also form part of the respiratory system which will be discussed in detail when we read about the respiratory system. Briefly, the lungs eliminate or help in the exhalation of carbon dioxide. Carbon dioxide is a poisonous gas.

Find The Answers

1. The liver is the second largest organ of the

   A. endocrine
   B. respiratory
   C. excretory
   D. glycogen

2. The word in paragraph 1 which means "get rid of" is _____

3. The word "eliminates" in paragraph 3 refers to _____

   _____.

4. The story does not say so, but it makes you think that;

   A. The large intestine produces glycogen.
   B. The excretory system is responsible for eliminating waste.
   C. The respiratory system digest fats.

5. Carbon dioxide is poisonous gas.

   Yes  No  Does not say

6. On the whole this story is about;

   A. The problems of the respiratory system.
   B. Vital organs of the excretory system like the liver.
   C. The elimination of carbon dioxide.

7. The large intestine eliminates

   A. Carbon dioxide.
   B. Bile and glycogen.
   C. Decomposed and digested food.

True or False

_____1. The liver produces bile and glycogen.

_____2. The lungs are not important organs.

_____3. The lungs eliminate carbon dioxide.

_____4. Carbon dioxide is a poisonous gas.

_____5. The liver is located on the upper left side of the belly.

_____6. The liver eliminates the decomposed and digested food.

_____7. The fourth vital organ of the excretory system is the large intestine.

_____8. There are four organs that compose the excretory system.

_____9. The liver is connected to the diaphragm muscle.

_____10. The lungs eliminate carbon dioxide by exhalation.

Answer The Following:

1. What is bile?

2. What is glycogen?

3. What does the large intestine do?

4. What is the function of the lungs?

5. What is the main function of the liver?

Fill in the blanks

1. l__ng
2. ex__re__or__
3. r__sp__r__t__ry
3. ex__[illegible]at__on
4. d__o__[illegible]__e
5. po__so__o__s
6. di__p__ragm
7. i__te__t__ne__
8. e__im__na__es
9. d__co__po__e
10. g__yc__ge__
11. b__ __ e
12. __b__o__en
13. li__e__

POST-TEST

1. Why is the body called a wonderful machine?

2. How do sweat glands react to high temperature?

3. How are the kidneys kept in place?

4. How does the body use bile and glycogen?

5. Why must you understand how the systems work?

6. Name the important organs of the excretory system.

7. What is the function of the kidneys?

8. What is the function of the liver?

| Vocabulary | Vocabulario |
|---|---|
| locate | localizar |
| lung | pulmón |
| malfunction | malafunción |
| neutralize | nutralizar |
| nourish | nutrir |
| perfect | perfecto |
| proclaim | proclamar |
| product | producto |
| recall | revocar |
| recognize | reconocer |
| refer | referir |
| regulate | regular |
| release | soltar |
| serve | servir |
| survive | sobrevivir |
| system | sistema |
| task | tarea |
| toxin | toxina |
| type | tipo |
| urine | orina |
| waste | desecho |
| wrong | malo |

| Vocabulary | Vocabulario |
|---|---|
| abdomen | abdomen |
| accomplish | completar |
| acid | ácido |
| against | contra |
| amount | suma |
| bacteria | bacteria |
| belong | pertenecer |
| bile | bilis |
| bladder | vejiga |
| carbon dioxide | dióxido de carbón |
| circulate | circular |
| constant | constante |
| decompose | descomponer |
| detail | detalle |
| diaphragm | diafragma |
| disease | enfermedad |
| eliminate | eliminar |
| excretory | excretorio |
| filter | filtro |
| function | función |
| glycogen | glicógeno |
| groom | cuidar |
| healthy | sano |
| human | humano |
| intestine | intestino |
| kidney | riñón |
| liver | hígado |